



Guest Lecture on “AI for Semiconductor Manufacturing”

Date: 4th February 2025

Venue: A209

Event Type: Guest Lecture

Mode of activity: Offline

Target group: Applied Science, B.Tech. AI/ML students and faculties

Organized by: School of Basic and Applied Sciences, K.R. Mangalam University, Sohna Road, Gurugram (Haryana).

Participants: 63

Resource Person: Dr. Tejender Singh Rawat, Assistant Researcher at Foxconn Technology, Taiwan

Event Coordinators: Dr. Rishi Ranjan Kumar

Introduction

The School of Basic and Applied Sciences (SBAS) successfully organized a guest lecture on "AI for Semiconductor Manufacturing" to provide students with valuable insights into the role of artificial intelligence in the semiconductor industry. The session featured Dr. Tejender Singh Rawat from Foxconn Technology, Taiwan, as the distinguished speaker and was coordinated by Dr. Rishi Ranjan Kumar. The event saw an excellent turnout of students from Applied Science and B.Tech AI/ML programs, showcasing their keen interest in this cutting-edge field.

Objective of the Lecture

The primary objective of the lecture was to introduce students to the integration of AI in semiconductor manufacturing and to demonstrate how advanced technologies are reshaping the industry. The session aimed to:

- Explain the significance of AI in chip fabrication and process optimization.
- Provide real-world applications and case studies of AI in semiconductor industries.
- Discuss challenges and opportunities in AI-driven semiconductor manufacturing.
- Engage students in an interactive learning experience through discussions and Q&A.



Key Highlights

- Dr. Rawat delivered a comprehensive talk, covering various aspects of AI implementation in semiconductor fabrication. The key points discussed included:
- AI-Driven Automation: How AI enhances precision and efficiency in semiconductor manufacturing.
- Quality Control and Yield Optimization: AI-based defect detection and predictive maintenance strategies.
- Data Analytics in Manufacturing: Role of machine learning in optimizing semiconductor production processes.
- Challenges and Future Scope: Addressing industry challenges such as data security, ethical AI, and sustainability concerns.

Student Engagement and Q&A

The session concluded with an engaging Q&A segment, where students actively participated by posing insightful questions related to AI applications in chip manufacturing, job prospects in AI-driven semiconductor industries, and the future of AI in automation. The speaker provided detailed responses, encouraging students to explore this dynamic field further.

Conclusion

The guest lecture was highly successful in achieving its objectives and provided students with valuable industry insights. The event not only enhanced students' knowledge but also inspired them to delve deeper into the field of AI and semiconductor technology. Such initiatives contribute significantly to bridging the gap between academic learning and industry applications.

Acknowledgment

SBAS extends its gratitude to Dr. Tejender Singh Rawat for his insightful session and to Dr. Rishi Ranjan Kumar for coordinating the event. The enthusiastic participation of students further contributed to the success of the session.

We look forward to organizing more such impactful sessions in the future to foster innovation and learning among students.

Geotag photos with captions:



Photo 1: Student coordinator Sanna Sharma introducing the speaker



Photo 2: Student participation

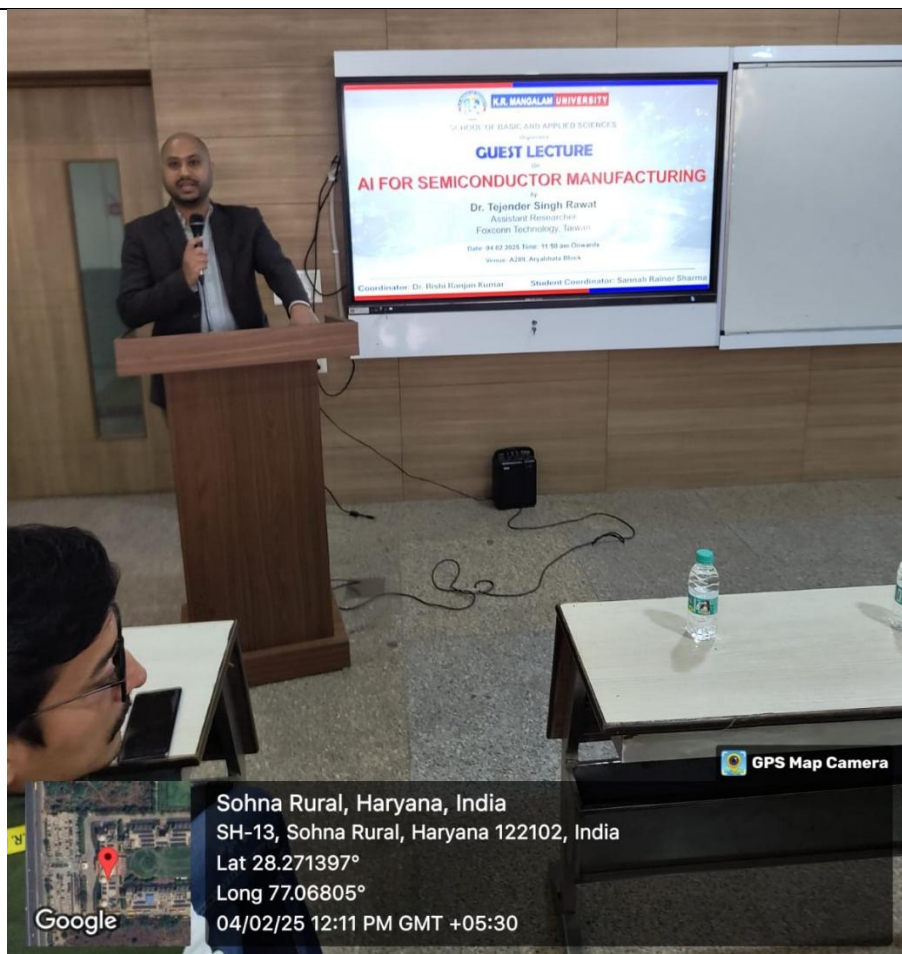


Photo 3: Dr. Rawat giving the presentation

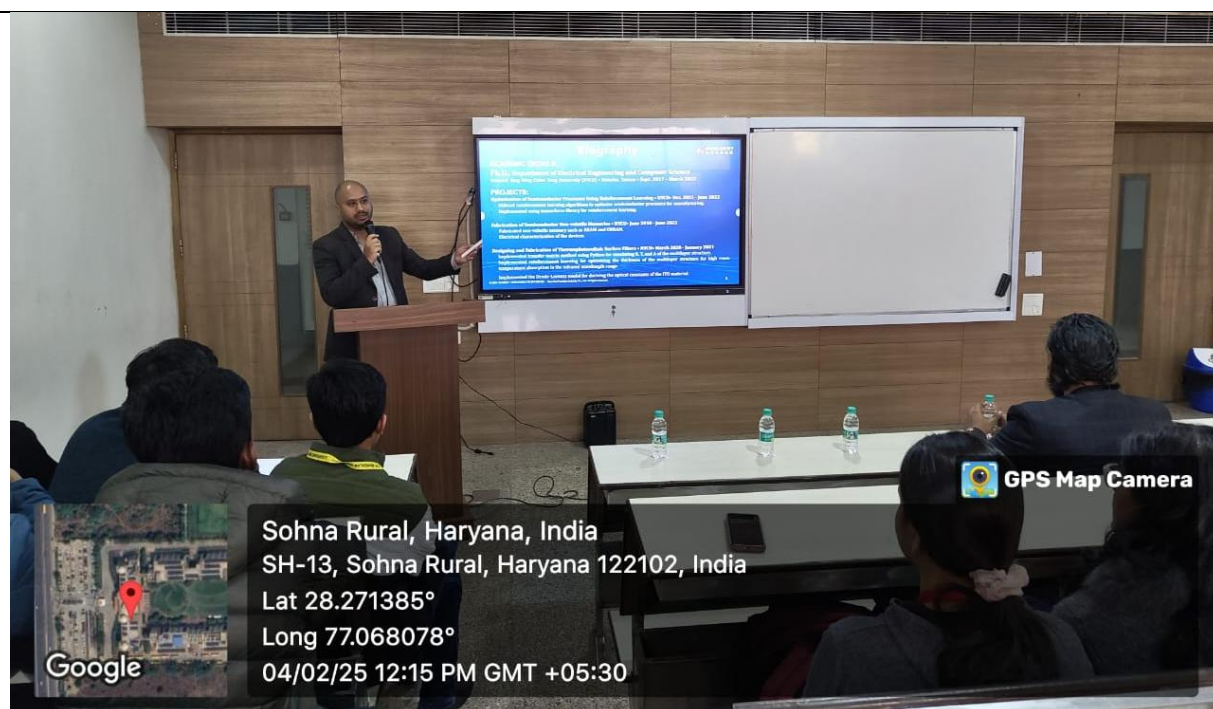


Photo 4: Dr. Rawat during interaction with the students



Photo 5: Group photo with the faculty members and Dean SBAS



Photo 6: Giving token of appreciation to the speaker